

SUPPLEMENTARY NOTES ON THE AMERICAN SPECIES

OF STRYCHNOS. XXI

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Since the latest paper of this series was published 72 new collections were examined. The newly examined collections added to our knowledge of several species and extensions of range noted for 10. (3. colombiensis, 28. solimoesana, 30. lobelioides, 31. peckii (2 new records), 52. erichsonii, 39. guianensis, 57. fulvotomentosa, 69. poepigii, 70. tarapotensis). One species, S. tseasnum from the basin of Rio Santiago, Amazonas, Peru was described as a new. S. solimoesana described on a sterile material in 1942 was finally found in flower for the first time.

I. Sectio Strychnos - T: S. nux-vomica L.

3. Strychnos colombiensis Krukoff & Barneby, Mem. N.Y. Bot. Gard. 12 (1): 21. 1965.

Venezuela: Tachira: slopes of Cerro de Cuite, J. Steyermark 119747.

This is the first record of the species from Venezuela.

5. Strychnos romeu-belenii Krukoff & Barneby, Mem. N.Y. Bot. Gard. 20 (1): 22. 1969.

Brazil: Bahia: R. M. Harley 22095 (K).

6. Strychnos rondetiioides Spruce ex Benth. Jour. Linn. Soc. 1: 104. 1856.

Peru: Loreto: Rio Nanay, varzea, Al. Gentry 28960.

12. Strychnos panamensis Seemann, Bot. Voy. Herald 166. 1854.

Panama: Colon: T. Antonio 3375 (MO); Darien: W. Hahn 205 (MO). Venezuela: Falcon: R. Liesner 8445 (MO); Zulia: Mara: J. Steyermark 122693 (MO), 122840 (MO), 122950 (MO); Yaracuy: R. Liesner 9678 (MO); Miranda: R. Liesner 5 (MO); Tachira: Steyermark, 119760, 120435 (MO); Barinas: R. Liesner 9482.

25. Strychnos pseudo-quina A. St. Hilaire, Mem. Mus. Paris 9; 340. 1822.

Brazil: Mato Grosso: campo cerrado, M.G.Silva 4512; Distrito Federal: J. A. Ratter 3190 (K); São Paulo: M. Moreiro de Souza s. n. (27/1-1968).

28. Strychnos solimoesana Krukoff, Brittonia 4: 280. 1942.

Peru: prov. Maynas, caseria Alianza, Rio Tamshyaeu, Aug. 1, 1980: A. Gentry et.al. 29253 (NY).

This species was described from sterile material collected in Brazil, Amazonas, munic. São Paulo de Olivença, basin of creek Belem, near Colombian border. (Krukoff 9066-NY-holotype).

Of many collections made during the last 40 years, only one had old flowers. The present collection is not only the first from Peru, but also the first that has flowers in good condition. Description of flowers by Rupert Barneby follows:

Calyx 2.5--3mm, the lobes lance-acuminate, thinly pilosulous with ascending hairs; corolla pink when fresh, the cylindrical tube slightly narrowed distally 8.5 mm long, finely papillose and in upper 2/3 pilosulous both within and without, the ovate-elliptic lobes \pm 2.5--2.8 x 1.3mm, barbellate ventrally in proximal 1/3; anthers sessiloid at the sinuses, ovate in outline 0.8 x 0.4 mm, glabrous, muticous; style \pm 9--9.5 mm, pilosulous in upper 2/3, the capitate stigma glabrous, exserted \pm 1 mm from corolla-tube.

Of the species of sect. Strychnos with axillary inflorescences, only S. pseudoquina has corolla tube similarly papillose without, and a pilose style. However S. pseudoquina is confined to Central Brazil and adjacent Paraguay and is completely different from S. solimoesana in vegetative characters.

- 29a. Strychnos tseasnum Krukoff and Barneby sp.nov.

Inter omnes sectionis suae species foliis elongatim ovatis basi subcordatis infra secus nervos principales pilosulis fructusque parvi 2--3.5 cm diam pericarpio tenui \pm 0.3 mm crasso notabilis, corolla ignota affinitatis dubiae sed pro tempore juxta S. froesii et S. lobelioidem ponenda.

Arborescent vines 2--4 m, the young branchlets and veins of lower leaf-surface pilosulous with straight erect brownish hairs \pm 0.3 mm, otherwise glabrous or almost so. Leaves subsessile elongately ovate-acuminate from shallowly cordate base, 10-18 x 4--6.5 cm, the thinly chartaceous blades 5--7 plinerved from point of insertion, the outermost pair of veins short, the innermost pair produced almost to apex, all deeply impressed ventrally and correspondingly prominent dorsally, the secondary veinlets subhorizontally transverse. Inflorescences axillary and terminal to hornotinous branchlets few-flowered, the primary and secondary axes together less than 1 cm, the pedicels of

fertilized flowers becoming \pm 1.5 mm long and thick; calyx 0.7--0.8 mm, the deltate-ovate lobes minutely ciliolate; corolla unknown; style 3-5.5 mm glabrous. Fruit 2--3.5 cm diam, orange, when dried, the sublustrous brown pericarp firmly chartaceous fragile \pm 0.3 mm thick; seeds olivaceous 17-19 x 10--11 mm.

Along trails in virgin monte, 180--200 m, known only from the vicinity of Caterpiza, valley of Rio Santiago, prov. Bagua, Amazonas, Peru. Collected in fruit in November, February, and March.

PERU: Amazonas: Bagua: Caterpiza and vicinity (77° 40' W, 3° 50' S), 12.XI. 1979, V. Huashikat 1229 (Holotype, NY; isotype, MO); 25.II.1980, S. Tunqui 944 (MO,NY); 26.III.1980, S. Tunqui 1112 (MO,NY).

This species is distinguished from all American *Strychnos* by its elongately ovate-acuminate leaves shallowly cordate at base and further from the known members of sect. *Strychnos* that have mostly axillary inflorescences by the dorsally pilosulous primary venation of the leaf-blades and the small fruits with fragile shell about 0.3 mm thick. In absence of the corolla its close relationships in sect. *Strychnos* cannot be determined; and it placed provisionally between *S. froesii* Ducke and *S. lobelioides* Krukoff and Barneby. The epithet is the vernacular name, recorded by both Huashikat and Tunqui.

30. *Strychnos lobelioides* Krukoff and Barneby, Mem. N.Y. Bot. Gard. 12 (1); 44, fig. 2. 1965.

Peru: Amazonas: Rio Santiago, Victor Huashikat 1229.

This is the first record of the species from Peru.

31. *Strychnos peckii* B. L. Robinson, Proc. Amer. Acad. 504. 1913.

Venezuela: Amazonas: eleven kms. northeast of San Carlos de Rio Negro, R. Liesner 3960; Yaracuy: San Felipe, J. Steyermark 123763. Peru: Amazonas: Huashikat 396 (MO). Brazil: Para: Paracominas: T. Plowman 9493.

This is the first record of the species from Yaracuy, and Peru.

32. *Strychnos erichsonii* Richard Schomburgk, Reisen 3: 1082. 1848, nomen; ex Progel in Mart, Fl. Bras. 6(1): 274. 1868.

Venezuela: territ. Fed. Amaz.: R. Liesner 8889 (MO). Peru: Loreto:Maynas; Al. Gentry 29251 (MO), Filomeno Encarnacion 958; Amazonas: Rio Santiago, Huashikat 1938. Brazil: Mato Grosso: Rio Juruena, M.G.Silva 3259. Colombia: Amazonas: C. Sastre 2283.

This is the first record of this species from Mato Grosso.

- 32a. Strychnos croatii Krukoff & Barneby, *Phytologia* 33:313. 1976.

Panama: Panama: slopes of Cerro Jefe, T. Antonio 3428;

Darien: headwater of Rio Tabuelita, W. C. D'Arcy 14595.

33. Strychnos gardneri A. DeCandolle in De.Candolle, *Prodr.* 9:14. 1845.

Brazil: Minas Geraes: Rio do Cipo, G. Hatschbach 30032.

35. Strychnos bredemeyeri (Schultes) Sprague & Sandwith, *Kew Bull.* 1927: 128. 1927.

Venezuela: Apure: D. Davidse 16817 (MO); terr. Fed.

Amazonas: Paul Berry 2263, Rio Cataniapo, J. Steyermark 122144 (MO).

38. Strychnos darienensis Seemann, *Bot. Voy. Herald* 166. 1854.

Peru: Loreto: Maynas, A. Gentry 25786 (MO), Josephine Jones 9721, Filomeno Encarnacion 974. Brazil: Para: Rio Trombetas, C. A. Cid 1527.

- 38a. Strychnos ecuadoriensis Krukoff & Barneby, *Phytologia* 39: 276. 1978.

Ecuador: Napo: T. B. Croat 50323.

II. Sectio Rouhamon (Aubl.) Progel in *Mart. Flora Bras.* 6 (1): 275. 1868.

39. Strychnos guianensis (Aublet) Martius, *Syst. Mart. Med. Bras.* 121. 1843.

Venezuela: Tachira: J. Steyermark 119054; Sucre: J. Steyermark 120778; territ. Fed. Amazonas: M. Farinas 680, D. Davidse 16995 (MO). Brazil: Para: Acará, D. C. Daly D890, Rio Mapuera, C. A. Cid 1150.

This is the first record of this species from Tachira.

III. Sectio Breviflorae Progel in *Mart. Fl. Bras.* 6 (1): 277. 1868. Subsectio Breviflorae.

55. Strychnos rubiginosa A. DeCandolle in DeCandolle *Prodr.* 9: 16. 1845.

Brazil: Mato Grosso: Chapada dos Guimaraes, C. M. Christenson 1174.

56. *Strychnos parvifolia* A. DeCandolle in DeCandolle. Prodr. 9:16.1845.

Brazil: Para: Tucuruí, T. Plowman 9656; Conceição do Araguaia, T. Plowman 8793, 9006; Goiás: G. Hatschbach 39055.

57. *Strychnos fulvotomentosa* Gilg. in Engler, Bot. Jahr. 25 (Beibl. 60): 40. 1898.

Brazil: Parana: G. Hatschbach 40202.

59. *Strychnos brasiliensis* (Sprengel) Martius, Flora 24 (Beibl. 2): 84. 1841.

Brazil: Rio Grande do Sul: B. Rambo 39469. Argentina: Misines: J. E. Montes 7118 (K), Angel L. Cabrera 28635.

Subsectio *Eriospermae* Krukoff and Barneby, Mem.N.Y.Bot. Gard. 20: 68. 1969.

63. *Strychnos brachistantha* Standley, Field Museum, Publ. Bot. 12: 412. 1936.

Nicaragua: Depto de Rio San Juan, Neill & Vincelli 3508 (MO).

64. *Strychnos nigricans* Progel in Mart. Fl. Bras. 6(1): 280. 1868.

Brazil: Parana: mun. Cerro Azul, G. Hatschbach 39989.

65. *Strychnos mattogrossensis* S. Moore, Trans. Linn. Soc. II. 4: 392. 1895.

Peru:Loreto:Maynas, C. Diaz 1200 (MO).

69. *Strychnos poeppigii* Progel in Mart. Fl. Bras. 6(1): 282. 1868.

Venezuela: Zulia: Colon, G. Davidse 18654. Peru: Loreto: Josephine Jones 9556.

70. *Strychnos tarapotensis* Sprague & Sandw., Kew Bull. 1927: 131. 1927..

Brazil: Mato Grosso: J. M. Pires 17227. Peru:Loreto:Maynas, Al Gentry 18348; San Martin: Jose Schunke 13495; Amazonas: Rio Santiago, S. Tunqui 188, 254, 645, 952, V. Huashikat 365 (MO), 1162 (MO), 2037 (MO).

This is the new record of the species from Mato Grosso.

71. *Strychnos schunkei* Krukoff & Barneby, Phytologia 25:53.1972.

Peru: Loreto: Maynas, Al Gentry et.al. 28050.

Bibliography

In order to conserve space, I am citing here only the papers which are not cited in Supplement VII-XIX.

1. Krukoff, B. A., Supplementary notes on the American species of Strychnos XX. *Phytologia* 50: 73-77. 1982.

List of Exsiccatae

The first list of Exsiccatae covering papers on *Strychnos*, including Supplement XI, was published in *Lloydia* 35 (3): 262-270. 1972, the second covering Supplements XII, XIII, and XIV in *Phytologia* 33: 319-322. 1976, the third covering Supplements XV and XVI in *Phytologia* 39: 281-282. 1978, the fourth list covering Supplement XVII in *Phytologia* 41: 237-238. 1979, the fifth list covering Supplement XVIII in *Phytologia* 44: 9. 1979, the sixth list covering Supplement XIX in *Phytologia* 46: 65-77. 1980, the seventh list covering Supplement XX in *Phytologia* 50: 73-79. 1982. The present list covers Supplement XXI. Only numbered collections and those of which the dates of collection are recorded have been listed. Collections identified with doubt are not listed. If a collector gathered his collection together with others, only his name is cited in this list. Collections with Prance's numbers are cited under Prance.

Antonio, T., 3375 (12), 3428 (32a).

Berry, Paul, 2263 (35).

Cabrera, Angel L., 28635 (59).

Christenson, C. M., 1174 (55).

Cid, C. A., 1150 (39), 1527 (38).

Croat, Th. A., 50323 (38a).

Daly, D. C., D890 (39).

D'Arcy, W.C., 14595 (32a).

Davidse, G., 16817 (35), 16995 (39), 18654 (69).

Diaz, C., 1200 (65).

Encarnacion, Filomeno, 958 (32), 974 (38).

Farinos, M., 680 (39).

Gentry, Al, 18348 (70), 25786 (38), 28050 (71), 28960 (6),
29251 (32), 29253 (28).

Hahn, W., 205 (12).

Harley, R. M., 22095 (5).

Hatschbach, G., 30032 (33), 39055 (56), 39989 (64), 40202 (57),

Huashikat, V., 365 (70), 396 (31), 1162 (70), 1229 (29a), 1938
(32), 2037 (70).

Jones, Josephine, 9556 (69), 9721 (38).

Liesner, R., 3960 (31), 8445 (12), 8889 (32), 9170 (12), 9482 (12), 9678 (12).

Neill, David, 3508 (63).

Montes, J. E., 7118 (K) (59).

Moreiro de Souza s.n. (27/1-1981) (25).

Pires, J. M., 17227 (70).

Plowman, T., 8793 (56), 9006 (56), 9493 (31), 9656 (56).

Rambo, B., 39469 (59).

Ratter, J. A., 3190 (25).

Schunke, Jose, 13495 (10)

Silva, M. G., 3259 (32), 4512 (25).

Steyermark, J. A., 119054 (39), 119747 (3), 119760 (12), 120435 (12), 120778 (39), 122144 (35), 122693 (12), 122840 (12), 122950 (12), 123763 (31).

Tunqui, Santiago, 188 (70), 254 (70), 645 (70), 944 (29a), 952 (70), 1112 (29a).